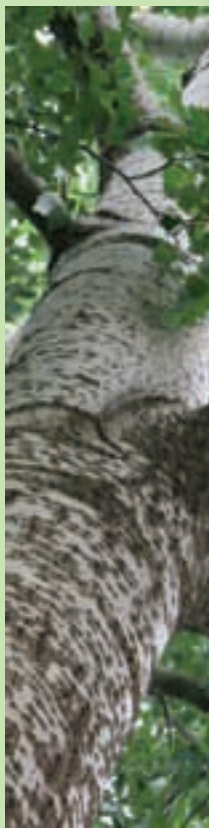


Big
TREES of

DELAWARE
Third Edition



The Delaware Forest Service is proud to present the Third Edition of Big Trees of Delaware. Over the years, people have organized lists of trees for various purposes. Some lists included historical trees, some were of notable trees in association with natural areas, and some were of Delaware's Big Tree Champions. The first Big Tree list was recorded in William Taber's book entitled Delaware Trees in 1939. In 1960 Walter Gabel started a list that included white oaks recognized as growing at the time of William Penn's tenure in this area. Charles E. Mohr, a naturalist with the Delaware Department of



Natural Resources and Environmental Control, published a list of 100 notable trees in 1973. This list combined historical and big tree specimens. The Delaware Forest Service published its first edition of Big Trees of Delaware in 1995, and a second edition in 2000. We hope you enjoy this Third Edition, and we encourage you to continue searching for big trees.

What makes a big tree?

What literally covers the State of Delaware from its arc to the Mason-Dixon line? Trees! Trees of all kinds—from Ash to Zelkova. The largest specimens of many of these tree species are listed in this publication. For instance, one can find the record of Delaware's tallest tree, a yellow-poplar at Winterthur Gardens, Wilmington that is 166 feet tall, and an American hornbeam that is a mere 26 feet tall. Yet each is listed and officially recognized as a Big Tree. While the American hornbeam is not nearly as impressive in stature as the yellow-poplar, it is still the largest of its species reported in Delaware thus far; hence, it is a champion. Three measurements are needed to determine a tree's score. They are (1) the circumference, (2) the height, and (3) the average crown spread.

1. Circumference—Also known as CBH (Circumference at Breast Height), this measurement is made in inches at a point on the tree trunk 4-1/2 feet above the ground. If the tree is growing on a slope, the 4-1/2 feet is determined from the uphill side of the tree. The tree must have a single trunk for a least 4-1/2 feet to be considered a single tree. Trees that are forked below 4-1/2 feet are considered two trees. If

there is abnormal swelling at the measurement point, the measurement should be taken at a point lower on the trunk where the measurement will reflect the normal size of the tree. If the circumference is measured at a point other than 4-1/2 feet, this height should be noted. For instance, a tree might be recorded as 75 inches at 3-1/2 feet. The key is to measure the circumference as near 4-1/2 feet above the ground as possible and yet show the normal size of the tree. If you do not have a diameter tape to measure the circumference, use a nonstretching rope or cord to get around the tree, and mark it. Then lay the rope flat and measure the length with a yard stick in inches. One point is given for each inch of circumference.

2. Height—The height is measured from the ground line to the highest point on the tree. Again, if the tree is growing on a slope, the ground line is determined from the uphill side. This is the hardest measurement to make for a person without a height instrument, such as an Abney level or a clinometer; however, one can get a fairly good measurement by using a straight stick.

Hold the stick vertically (plumb), and be certain that the length of the stick above your hand equals the distance from your hand to your eye (usually about 24–25"). This creates a right-angled triangle. Now move away from the tree, on level ground, while sighting over the base of your hand to the base of the tree and stop when the top of the stick is level with the top of the tree. (Do not move your head up and down, just your eye.) Now the distance from you to the tree is equal to the height of the tree. One point is given for each foot of height.

3. Average Crown Spread—To determine this, two measurements are taken at the outer edges (drip line) of the spreading crown. Measurements are recorded in feet at the widest point of crown spread and at the narrowest point. These two measurements are added together and divided by two to get the average crown spread. One-fourth of a point is given for each one foot of average crown spread (or one point for each four feet of spread).

Add the points from each measurement and a total point value is determined. A co-champion tree is

named if it is within five points of the champion. If you have difficulty in measuring a Big Tree nominee, measure it to the best of your ability and send the results to: Delaware Forest Service, 2320 S. DuPont Highway, Dover Delaware 19901 (302-698-4500 or 1-800-282-8685). Include a notation that the measurements need verification. Three other items are necessary to complete a Big Tree nomination: the landowner's name and address, the nominator's name and address, and the exact location of the tree. With these facts, your tree could appear in the next revision of Big Trees of Delaware.

As a point of interest, the largest tree in Delaware is a zelkova, located on the C.P. Schutt Estate in Greenville. It is a huge tree that is over 318 inches in circumference and 76 feet tall, and totals 422 points. Big Trees can be interesting not only because of size, but also for things like unusual species, appearance, age and historical significance. One intriguing species is the dawn-redwood which was thought to be extinct, but was discovered in China and introduced to Delaware at Winterthur Gardens.

How were the tree species selected for this book?

The Delaware Forest Service selected the species of trees to be included in the Third Edition. A commonly accepted definition of a tree is a woody plant with a single, central stem that is capable of reaching a height of 30 feet. Forest Service staff used this definition to begin the selection process. Plants that did not meet this definition were not considered and are thus not included. For example, mountain-laurel was not included because while this woody plant is common throughout Delaware, it rarely exceeds 15 feet in height and lacks a central stem.

Invasive exotics are also excluded from this edition because they present serious challenges to forest managers. Invasive exotics are plants that are not native to this region, but because they grow rapidly and typically produce abundant windborne seeds, they quickly spread once introduced. These trees compete so aggressively with the native trees of Delaware, and can be so difficult to eliminate once established, that they now constitute a very serious forest health issue. Examples of invasive exotic trees that have been excluded from this publication are Norway maple, white mulberry, and tree-of-heaven. Each of these species has been widely planted in Delaware.

Natural resource managers invest thousands of dollars annually to combat the spread of invasive exotics.

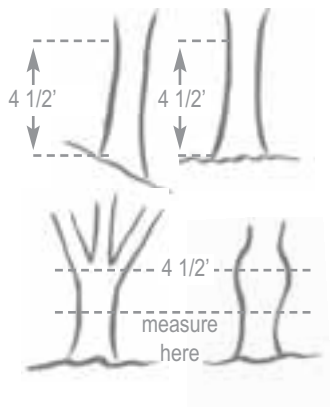
Many exotic trees, however, are not invasive. Trees such as Norway spruce, ginkgo, and dawn-redwood have been brought from other parts of the world and are widely planted throughout the state. Unlike invasive exotics, these trees do not reproduce aggressively or spread rapidly, and therefore do not threaten the health of native forests. These well-known and non-spreading trees are handsome components of our urban landscapes, and are included in the Third Edition.

There are, however, some species for which we have not found champions, such as swamp white oak. Who knows—perhaps your discovery might be tomorrow's champion!

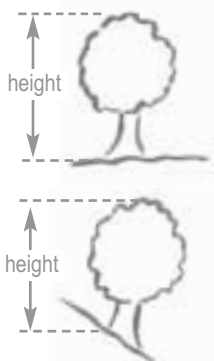
Visiting a Big Tree can be an exhilarating experience, and it should also be an enjoyable experience for everyone involved, including the tree's owner. To ensure enjoyment, please remember to respect the rights and wishes of the owner. Ask permission to view the tree. Good luck and hopefully you will find Delaware's next champion.

Tree measurements

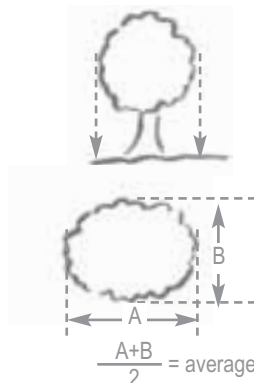
1. circumference



2. height



3. average crown spread



How can you tell the age of a tree?

Many people are fascinated with guessing the age of the trees that have a special place in their lives. There is no easy way to determine a tree's age, short of cutting the tree down and counting the annual rings, but the International Society of Arboriculture has developed an easy-to-follow formula.

First, determine the tree diameter in inches measured at 4-1/2 feet above ground level (on steep slopes, measure from uphill side). Remember, the diameter is equal to the circumference divided by 3.14. Using the following table, determine the factor for the species of interest, and multiply that factor by the diameter in inches to estimate the tree's age (in years).

Species or variety	Factor
Green Ash	4
White Ash	5
American Beech	6
European Beech	4
River Birch	3-1/2
White Birch	5
Yellow Buckeye	5
Black Cherry	5
Kentucky Coffeetree	3
Shagbark Hickory	7-1/2
Horsechestnut	8
American Elm	4
Douglas-fir	5
White Fir	7-1/2
Little Leaf Linden	3
Black Maple	5
Hedge Maple	4
Red Maple	4-1/2
Silver Maple	3
Sugar Maple	5-1/2
Black Oak	4
Pin Oak	3
Northern Red Oak	4
Scarlet Oak	4
Shingle Oak	6
Shumard Oak	3
White Oak	5
Austrian Pine	4-1/2
Red Pine	5-1/2
White Pine	5
Blue Spruce	4-1/2
Norway Spruce	5
Sweetgum	4
American Sycamore	4
Yellow-poplar	3
Black Walnut	4-1/2

What are the benefits of trees?

Who can put a value on an old shade tree? Too many times when we use the term “value” we automatically think of dollars and cents. But let’s hold the dollar value for a later time and concentrate on another “value.” Let’s change the word “value” to “benefits” and ask the question, “What are the benefits we derive from that shade tree?” The real benefits from trees are often taken for granted, or maybe only the most obvious come to mind. If we consider some of the most important benefits, perhaps we will develop a greater appreciation of trees.

1. Shade (or cooling effect)

Cities tend to be warmer than the surrounding countryside by an average of 1–2.5 degrees Fahrenheit. Trees and shrubs, wisely used, can help combat this warming effect in at least two important ways. The first involves how the tree deals with the direct rays of the sun (solar radiation). In the summer, the leaves in the tree’s crown reflect and absorb solar radiation, thus creating a cooling effect on hot days. Conversely, in the winter, the leaves are gone from the tree and more solar radiation reaches the ground where we appreciate it on those cold winter days.

The second is the release of water into the atmosphere through transpiration. Research has shown that a single isolated tree can transpire approximately 88 gallons of water per day, providing there is sufficient soil moisture available. This can be compared to the cooling activity equivalent to five window-mounted air conditioners.

2. Wind Reduction and Wind Breaks

The benefits of using trees to alter wind patterns have been recognized for years. One has only to think back to the shelter belts that were planted during the dust bowl days to recall trees’ effectiveness as windbreaks. But how many of us have stopped to consider how conifers (such as pine trees) planted on a slope can impede the cold air that would normally flow to a low-lying frost pocket? And let us not forget how we can use trees, that are not required to be taken down every summer, to serve as natural snow fences. Also, a few dense trees planted in the right place can actually reduce winter heating bills because they block the passage of air into the house, thus reducing heat loss.

3. Noise Abatement

Since sound is absorbed by the leaves, twigs, and branches of trees and shrubs, there is a definite reduction of noise when plants are used properly.

4. Pollution Abatement

Aside from the familiar carbon dioxide-oxygen exchange, it appears that trees definitely help give us cleaner, purer air. There is no denying the filtration value of leaves—just look closely at the leaves of a tree on a hot summer day and notice the dust and dirt that has collected. It has been shown that when the autumn leaves have fallen, they begin to function as a soil filter. This concept is not fully understood, but research is continuing to provide more answers. Yet one thing is certain—trees contribute to clean air.

5. Wildlife Habitat

It is easy to understand the value here. Trees provide the two essentials for wildlife: food and cover. Depending on the amount, type, and spacing of the trees, you can attract many species of wildlife to your home—from songbirds to deer. Yet, stop and think, how few species of wildlife you would attract without trees and shrubs.

6. Natural Beauty

Take a moment to consider the aesthetic qualities of trees. Trees can make any house much more visually appealing. Architecturally, plants are used to cut harsh lines, for traffic control, and for special effects around the home, and what about the imaginary jungles they spark in the minds of children?

On a broader spectrum, trees provide breath-taking panoramas in our rural areas and create a rainbow of colors in our hardwood forests each fall. The world would be a much more mundane place without them.

Trees face a number of environmental stresses: pollution, drought, mechanical damage from construction and maintenance practices, insects and disease, acid rain, and fire. Therefore, it is important that we properly care for trees to keep them healthy.

Following a few simple tree care practices can do wonders for your trees.

*T*ree care tips

The most commonly neglected part of the tree is the root system. The majority of a tree's roots are located within the top 12 to 18 inches of soil. Additionally, a tree's roots may spread up to three times as far from the trunk as the crown width of the tree. Let's refer to this as "the root zone." There are several precautions we should take in the root zone to protect the health of the roots, and thus, the tree.

1. Do not cut or remove soil in the root zone. This will expose tree roots, damaging them by drying or sun burn.

2. Do not add more than two inches of fill dirt in the root zone. This will limit gas and water exchange in the soil, effectively smothering tree roots.

3. Roots grow in a radial pattern outward from the tree's trunk. Never trench across this radial root pattern, as a devastating number of roots will be severed. If trenching is required for utilities or other reasons, attempt to route trenches away from the root zone. If this is not possible, consider boring under the root zone rather than trenching through it. Remember, the majority of roots occupy the top 12 to 18 inches of soil.

4. Avoid vehicle traffic and/or parking in the root zone. Additionally, limit pedestrian traffic if possible. These cause soil compaction, which is extremely detrimental to tree roots.

5. Use caution when applying fertilizers or pesticides in the root zone. For instance, many Weed and Feed products designed for turf can be very harmful to trees when applied in the root zone.

MULCHING

Mulching is an important part of tree care, as it serves three primary functions:

1. Mulch helps control environmental stress by cooling and stabilizing soil temperature and holding moisture in the soil.

2. Mulching helps prevent mechanical damage to trees from weed trimmers and lawnmowers by eliminating the need to mow adjacent to the trunk of the tree.

3. Mulch reduces competition to trees from surrounding turf and weeds.

Ideally, mulch should be placed two to four inches thick over the

entire root zone. If this is not possible, mulch as far out from the trunk as practical. Keep mulch one to two inches away from the trunk of the tree, as contact with the trunk may promote decay. Do not place mulch greater than four inches thick, as this will interfere with gas exchange in the soil.

PRUNING

Pruning may be necessary or desirable to remove dead, diseased, or insect-infested branches, or to improve tree structure, enhance vigor, or maintain safety. Pruning of mature trees should be performed by professional arborists. However, there are a few rules of thumb to remember:

1. No branch should be removed without a reason.
2. When removing an entire branch, make the cut just outside the branch collar.
3. Avoid major pruning immediately after the spring growth flush.
4. Minor pruning when the tree is young may prevent the need for major pruning years later.

5. Remove dead or damaged limbs and limbs that rub or cross one another.

6. **NEVER top a tree!** This practice is detrimental to the health of the tree.

SELECTING AN ARBORIST

The Delaware Forest Service recommends selecting an International Society of Arboriculture (ISA) Certified Arborist. ISA sponsors the Certified Arborist Program for three reasons:

- To improve the technical competency of personnel in the tree care industry.
- To create incentives for individuals in the tree care industry to continue their professional development.
- To provide the public and those in government with a means to identify those professionals who have demonstrated, through a professionally developed exam and education program, that they have a thorough knowledge of tree care practices.

Also be sure the selected arborist is licensed and insured, and do not be afraid to ask for references.

Atlantic White-Cedar

Not a true cedar, this conifer is usually found immediately adjacent to streams and in wet, boggy areas, particularly in southern Delaware. Its wood is very light, soft, fragrant, durable, and easy to work, and is often used for boats, shingles, and decoys. Typically 40 to 50 feet tall, this columnar shaped tree has bluish-green leaves. Seldom seen in most landscapes, it performs well in gardens but has noteworthy appeal for wetland reclamation purposes. It is no longer common in many areas due to the drainage and channelization of many streams.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Atlantic white-cedar <i>Chamaecyparis thyoides</i>	89.5	85	37.5	184	NW of intersection of 36 & 626, Milford
Atlantic white-cedar <i>Chamaecyparis thyoides</i>	82	75	65	173	322 West State Street, Millsboro
Atlantic white-cedar <i>Chamaecyparis thyoides</i>	75.1	75	32.5	158	417 North Walnut Street, Milford



Baldcypress

The only native deciduous conifer in Delaware, baldcypress is found in swamps and ponds in southern Delaware. Its unique broadly flared trunks and root-like knees (believed by some to help the tree breathe in flooded areas) help to identify this tree. Growing 50 to 70 feet tall, this stately tree is good in parks and large estates, especially in wet areas. The wood is very light and durable and is often used for shingles and boats. One of the northern-most natural stands of baldcypress in the United States is located at Trussum Pond near Laurel.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
baldcypress <i>Taxodium distichum</i>	251.3	92	62	359	Delaware Ave. behind R.J. Riverside Restaurant, Laurel
baldcypress <i>Taxodium distichum</i>	224.3	105	76	348	James Branch 2 miles east of Laurel
baldcypress <i>Taxodium distichum</i>	231.2	98	62.5	345	Cubalo Park, Millsboro



Cedar

These evergreens are not native to Delaware, but hail from the western United States as well as the Middle East. These trees have a dense cone shape, with foliage colors in varying shades of green. They require moist, well-drained soils and grow best in full sun. These species are commonly used in landscapes for foundation plantings, hedges, screens, wind-breaks, or accent plants. Cedar wood is very light and durable and is often used for shingles and siding.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
incense-cedar <i>Calocedrus decurrens</i>	143.6	92	30.5	243	Marl Pit Road, Middletown
cedar of Lebanon <i>Cedrus libani</i>	142.3	71	72	231	Church Street, Wyoming
cedar of Lebanon <i>Cedrus libani</i>	139.2	54	69.5	211	Brandywine Cemetery - 701 Delaware Ave., Wilmington
Atlas cedar <i>Cedrus atlantica</i>	136.3	56	82	213	Rockwood Museum and Park, Wilmington
northern white-cedar <i>Thuja occidentalis</i>	66	78	31.5	152	Brandywine Cemetery - 701 Delaware Ave., Wilmington
northern white-cedar <i>Thuja occidentalis</i>	75.4	59	20.9	140	Baynard Farm, Clayton

Fir

Fir species require moist atmospheres and cool temperatures. They are not native to Delaware, but are commonly found in the western and northeastern United States. Firs are rarely planted in urban settings because they do not tolerate air pollution and require a large amount of space due to their size. They are important timber trees in the western United States but in the east are more likely used for Christmas trees. Douglas-fir is in an entirely different genus but has characteristics and landscape uses similar to the true firs.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Pacific silver fir <i>Abies amabilis</i>	86.4	74	31	168	Ross Mansion, Seaford
balsam fir <i>Abies balsamea</i>	115	78	39	203	Ross Mansion, Seaford
balsam fir <i>Abies balsamea</i>	102.1	72	39	184	Ross Mansion, Seaford
balsam fir <i>Abies balsamea</i>	66.6	71	27.5	144	Buena Vista, New Castle
white fir <i>Abies concolor</i>	95.8	69	24	171	12 Kings Highway, Dover
Fraser fir <i>Abies fraseri</i>	120.6	69	39.5	199	4353 Summit Bridge Road, Middletown

Conifers



Fir continued

common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Nikko fir <i>Abies homolepis</i>	122.8	61	30	191	Winterthur, Wilmington
Nordmann fir <i>Abies nordmanniana</i>	160.5	94	36	264	Buena Vista, New Castle
Nordmann fir <i>Abies nordmanniana</i>	91.1	73	26	171	Ross Mansion, Seaford
Douglas-fir <i>Pseudotsuga menziesii</i>	115.9	92	49.3	220	Belmont Hall, Smyrna



Conifers

Hemlock

Native to northern New Castle County, this slow-growing conifer is a favorite ornamental for many landscapers. It can be used for screening and makes a great ever-green hedge. Hemlock is most commonly found on moist sites due to its preference for shade, but it adapts well to other soil types and responds well to pruning. Unfortunately, many hemlocks are now under attack by the exotic hemlock woolly adelgid, a tiny insect that feeds on the tree’s sap, eventually killing the tree.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
eastern hemlock <i>Tsuga canadensis</i>	112.2	86	50	211	Rockwood Museum and Park, Wilmington
eastern hemlock <i>Tsuga canadensis</i>	107.4	80	50.5	200	Brandywine Cemetery - 701 Delaware Ave., Wilmington
eastern hemlock <i>Tsuga canadensis</i>	72.3	69	42	152	1381 South State Street, Dover



Juniper (Eastern Redcedar)

Eastern redcedar is Delaware’s only native juniper, but is not a true cedar. Its red and white wood is lightweight, aromatic, and very durable, and it is often used to line closets and chests. This slow-growing tree is a desirable landscape plant that is used for windbreaks and screens. Although shade-intolerant, it grows in adverse conditions, and its small blue berries are a favorite of many birds.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
eastern redcedar <i>Juniperus virginiana</i>	111.5	90	50	214	3000 Creek Road, Yorklyn
eastern redcedar <i>Juniperus virginiana</i>	119.4	58	63	193	379 Stockley Road, Millsboro
eastern redcedar <i>Juniperus virginiana</i>	113.1	59	44	183	Route 9 at Route 518A, Georgetown



Conifers

Larch

The larch is a deciduous conifer (like baldcypress) found in colder climates. American larch is also known as tamarack. It grows well in moist areas. Larch is sometimes planted as an ornamental tree because of its colorful foliage, which progresses from light green in the spring to dark green and then impressive, bright fall colors.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
European larch <i>Larix decidua</i>	103	77	53.5	193	Brandywine Creek State Park, Wilmington
European larch <i>Larix decidua</i>	93.6	75	52	182	Christ Episcopal Church, Dover
European larch <i>Larix decidua</i>	89.2	76	44.5	176	Rockwood Museum and Park, Wilmington
tamarack <i>Larix laricina</i>	107.8	76	58	198	Buena Vista, New Castle
tamarack <i>Larix laricina</i>	92.4	72	43	175	Belmont Hall, Smyrna



Pine

Most of Delaware’s native pines are found in southern Delaware, although white pine is commonly planted throughout the state. Pines are great for use in large-scale landscape plantings, and can be used as screens, hedges, and windbreaks. Loblolly pine is Delaware’s most valuable timber species. It, along with the other southern yellow pines (shortleaf, pond, and Virginia), is used for lumber, paper, and poles. Pine seeds are a valuable food source for many wildlife species, such as squirrels.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
shortleaf pine <i>Pinus echinata</i>	62.2	90	28.5	159	Austin Short's farm, Georgetown
Austrian pine <i>Pinus nigra</i>	66	58	30.5	132	Bellevue State Park, Wilmington
Austrian pine <i>Pinus nigra</i>	47.1	60	36	116	Hagley Museum, Wilmington
red pine <i>Pinus resinosa</i>	70.7	63	43.5	145	Bellevue State Park, Wilmington
eastern white pine <i>Pinus strobus</i>	130.1	124	42	265	544 Way Road, Hockessin
eastern white pine <i>Pinus strobus</i>	136.3	97	77	253	Brandywine Cemetery - 701 Delaware Ave., Wilmington



Conifers

Pine continued

common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
eastern white pine <i>Pinus strobus</i>	107.8	118	40	236	Bellevue State Park, Wilmington
loblolly pine <i>Pinus taeda</i>	131.6	93	52	238	Trap Pond behind office, Laurel
loblolly pine <i>Pinus taeda</i>	103.4	110	44	224	9 Eagle Way, Rehoboth
loblolly pine <i>Pinus taeda</i>	118.1	92	51.9	223	Walt Wagamon House, Milton
Virginia pine <i>Pinus virginiana</i>	87.7	100	36.4	197	Carla Short's farm, Georgetown
Virginia pine <i>Pinus virginiana</i>	72.9	90	31.5	171	Redden State Forest - Bailey Tract, Georgetown
Himalayan pine <i>Pinus wallichiana</i>	172.8	86	33.5	267	Winterthur, Wilmington
Himalayan pine <i>Pinus wallichiana</i>	106.8	88	44.5	206	Bellevue State Park, Wilmington



Redwood/Sequoia

The evergreen coast redwood and giant sequoia are only native to the extreme western United States. The deciduous dawn-redwood is native to Asia and was once thought extinct. However, these conifers can be found in urban areas and estates throughout Delaware. They are great specimen trees, but are also useful for lining long drives or streets. In their native areas, they can reach immense sizes; for instance, the national champion giant sequoia scores 1,321 points.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
dawn-redwood <i>Metasequoia glyptostroboides</i>	190.1	95	55	299	Winterthur, Wilmington
dawn-redwood <i>Metasequoia glyptostroboides</i>	161.5	100	54	275	212 Clayton Avenue, Clayton
dawn-redwood <i>Metasequoia glyptostroboides</i>	125.7	109	52.5	248	1351 Naamans Road, Wilmington
giant sequoia <i>Sequoiadendron giganteum</i>	152.1	76	44	239	Hagley Museum, Wilmington



Conifers

Spruce

Spruce is not native to Delaware; however, several species are planted as ornamentals, windbreaks, and Christmas trees. Different species and cultivars offer a wide range of colors and branching variations. Spruce is commonly used for lumber and paper pulp. Spruces native to the United States are found in colder climates and the West Coast.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Norway spruce <i>Picea abies</i>	119.4	100	44	230	Hagley Museum, Wilmington
Norway spruce <i>Picea abies</i>	95.8	95	39	201	Winterthur, Wilmington
Norway spruce <i>Picea abies</i>	95.5	92	33	196	1358 Choptank Road, Middletown
Colorado blue spruce <i>Picea pungens</i>	78.5	63	30	149	Wilmington Country Club, Wilmington

Yew

Although not native to Delaware, yew is often planted as an ornamental due to its dense branches, reddish-brown trunk, and beautiful pyramidal form. While yew seldom reaches heights over 20 feet in Delaware, it is easily pruned; thus, it is frequently planted in urban areas and around homes to form a natural hedge. Caution should be used, however, as yew leaves are poisonous to some animals.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
English yew <i>Taxus baccata</i>	173.4	52	57	240	Christ Episcopal Church, Dover
English yew <i>Taxus baccata</i>	123.8	40	58	178	Belmont Hall, Smyrna
English yew <i>Taxus baccata</i>	100.5	27	34	136	Ross Mansion, Seaford



Conifers

Ash

Ash is traditionally found along stream banks and wetlands within Delaware. It is a hardy tree and some species are widely planted in cities and towns, however, they are susceptible to many diseases and insect pests. Ash wood is strong and durable, and is commonly used for furniture, baseball bats, and handles. Ash has a compound leaf (5 to 9 leaflets) and is one of the few Delaware trees that has an opposite branching pattern.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
white ash <i>Fraxinus americana</i>	189.8	112	106	328	Brandywine Creek State Park, Wilmington
white ash <i>Fraxinus americana</i>	164	132	40.5	306	Hagley Museum, Wilmington
white ash <i>Fraxinus americana</i>	153	98	90	274	Brandywine Creek State Park, Wilmington
green ash <i>Fraxinus pennsylvanica</i>	188.5	98	114	315	12 Millwright Road, Newark
green ash <i>Fraxinus pennsylvanica</i>	159.5	127	77.5	306	Hagley Museum, Wilmington

Basswood

More common in northern Delaware, basswood prefers deep, rich soils, but is commonly planted in urban areas. Basswood is a nice shade tree; however, it can reach a height of 80 feet or more, so it should only be planted in large spaces. The wood is soft and very lightweight, and thus is often used for carving. Basswood has fragrant flowers, and its fruit is a small, bony nut preferred by many animals.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
American basswood <i>Tilia americana</i>	206.4	93	77	319	19 Wrangler Road, Newark
American basswood <i>Tilia americana</i>	141.4	99	57	255	5620 Kennett Pike, Centreville
littleleaf linden <i>Tilia cordata</i>	190.1	91	70	299	Ross Mansion, Seaford
European linden <i>Tilia platyphyllos</i>	154.6	104	67.5	275	15 Ashley Place, Wilmington



Beech

Although found throughout Delaware, beech is more common in the north. It is easily identified by its smooth, gray bark. Its leaves, which contain very prominent parallel veins, turn copper-colored in the fall and often persist on the tree well into the winter. Beechnuts are a favorite of many wildlife species. Beech wood is not valuable and is often used for pallets and railroad ties. The beautiful shape and great size of the beech make it an excellent specimen tree in large spaces.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
American beech <i>Fagus grandifolia</i>	152.7	137	96	314	Wooded lot behind 1700 N. DuPont Hwy, Dover
American beech <i>Fagus grandifolia</i>	152.4	91	105	270	618 Silverside Road, Wilmington
American beech <i>Fagus grandifolia</i>	143.3	73	105.5	243	RD 1, Box 142, Ellendale
European beech <i>Fagus sylvatica</i>	276	91	109	394	1 Great Barn Lane, Greenville
European beech <i>Fagus sylvatica</i>	217.4	88	98	330	3000 Creek Road, Yorklyn
European beech <i>Fagus sylvatica</i>	212.4	74	70	304	49 Hazel Road, Dover

Birch

Birches in Delaware are usually found along streams and ponds, and are easily identified by their curling bark. Birches are very hardy and can thrive in a wide range of conditions; therefore, they are often planted in urban areas and wetlands. Birch seeds are eaten by wildlife. Birch wood is valued for furniture and flooring.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
yellow birch <i>Betula alleghaniensis</i>	110.6	77	66	204	Holy Cross Church, Dover
yellow birch <i>Betula alleghaniensis</i>	91.4	83	60	189	971 Cloverfield Lane, Houston
river birch <i>Betula nigra</i>	128.8	82	78	230	Memorial Park, Dover
river birch <i>Betula nigra</i>	109.6	73	72	201	Paradise Alley Road, Felton



Blackgum

Blackgum, a member of the tupelo family, is native to Delaware. It is one of the last trees to leaf out in the spring and one of the first to lose its leaves in the fall. Its dark blue fruit (called a drupe) is preferred by many birds and other wildlife. Its gray bark helps to identify the tree as it is usually divided into rectangles by black fissures. The tree has gained popularity as a street tree as it is quite hardy and the leaves reliably turn fiery-red in the fall. Blackgum wood does not season well and thus is not very valuable.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
blackgum <i>Nyssa sylvatica</i>	264.7	102	38.5	376	Dover Air Force Base, Dover
blackgum <i>Nyssa sylvatica</i>	155.2	98	81.5	274	Rockwood Museum and Park, Wilmington
blackgum <i>Nyssa sylvatica</i>	156.1	87	87	265	Coverdale Farm, Yorklyn

Buckeye

Buckeye is not native to Delaware, but is widely planted because of its showy flowers and vibrant fall colors. Its leaves are usually arranged in a palm shape, typically consisting of five leaflets. This tree's fruit is a favorite of wildlife. Due to its small size, the buckeye tree has little commercial timber value.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Ohio buckeye <i>Aesculus glabra</i>	114.7	73	55	201	1082 Old Lancaster Pike, Hockessin
horse-chestnut <i>Aesculus hippocastanum</i>	128.8	52	65	197	4185 St. Georges Road, St. Georges
horse-chestnut <i>Aesculus hippocastanum</i>	77	48	48	137	Bellevue State Park, Wilmington
sweet buckeye <i>Aesculus ocrandra</i>	120	99	51	232	Hagley Museum, Wilmington
red buckeye <i>Aesculus pavia</i>	121	65	57.5	200	Bellevue State Park, Wilmington
DuPont buckeye <i>Aesculus x duPontii</i>	133.8	94	53.5	241	Hagley Museum, Wilmington



Catalpa

While not native to Delaware, catalpa is found in yards and other urban areas throughout the state because it is tolerant of many soil conditions. Also known as the cigar tree due to its long seed pods, the catalpa has large heart-shaped leaves and showy white flowers. The wood is brittle but quite durable and is sometimes used for carving.



common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
southern catalpa <i>Catalpa bignonioides</i>	101.2	50	34.5	160	Hagley Museum, Wilmington
northern catalpa <i>Catalpa speciosa</i>	152.1	73	45.5	236	5 Elizabeth Street, Milford
northern catalpa <i>Catalpa speciosa</i>	136.7	76	45	224	Scull Mansion, Dover

Cherry

Common throughout the state, the native black cherry is often found in abandoned fields, hedgerows, and immediately after timber harvests. Many cherry hybrids can withstand urban conditions and are used as street plantings in cities. Black cherry fruit is a food staple for many bird species throughout Delaware. Its wood is highly valued for furniture and cabinets.



common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
sweet cherry <i>Prunus avium</i>	170.9	66	46	248	14 Milltown Road, Wilmington
sweet cherry <i>Prunus avium</i>	132.6	89	51	234	613 Andover Road, Talleyville
sweet cherry <i>Prunus avium</i>	112.5	92	92	228	Hagley Museum, Wilmington
fire cherry <i>Prunus pensylvanica</i>	80.1	82	27	169	Dover Air Force Base, Dover
black cherry <i>Prunus serotina</i>	175.3	93	62.5	284	113 3rd Street, Wyoming
black cherry <i>Prunus serotina</i>	174.7	68	65	259	Blackbird State Forest, Smyrna
black cherry <i>Prunus serotina</i>	130.4	77	55	221	65 Johnson Road, Lincoln



Dogwood

Common in both forests and urban areas, the native flowering dogwood is known for the beautiful white bracts found around its flowers in the shape of a cross. The red berries of the dogwood are a favorite of many birds. Unfortunately, the anthracnose fungus has recently killed many dogwoods throughout Delaware. The wood is very hard and was once used for tool handles.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
flowering dogwood <i>Cornus florida</i>	83.9	36	36.5	129	Brandywine Cemetery - 701 Delaware Ave., Wilmington
flowering dogwood <i>Cornus florida</i>	59.7	31	37	100	4010 Valley Green Road, Greenville
flowering dogwood <i>Cornus florida</i>	60.9	27	35.3	97	221 Atlantic Street, Milton

Elm

Once an important species, the American elm has virtually disappeared from the area due to Dutch elm disease. Other elm species less susceptible to the disease are still planted in urban areas. Disease-resistant cultivars of American elm are becoming more available in the nursery trade. Elms are favorite landscape trees due to their massive size and popular umbrella-like shape; however, their wood is not commercially valuable.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
American elm <i>Ulmus americana</i>	211.4	139	91	373	The Green, Dover
American elm <i>Ulmus americana</i>	167.4	121	85.5	310	The Green, Dover
American elm <i>Ulmus americana</i>	177.5	94	113.5	300	1191 Boyds Corner Road, Middletown
slippery elm <i>Ulmus rubra</i>	150.8	90	104	267	Federal Street, Milton
slippery elm <i>Ulmus rubra</i>	88	98	61	201	2401 East Mall, Wilmington



Hardwood's

Ginkgo

The ginkgo is the oldest tree species and a link between conifers and pre-historic plants. It is often planted in parks, gardens, along streets, and in urban areas because it is very hardy and resistant to most diseases and insects. Male specimens are preferred because the fruit of the female trees is messy and emits an odor that many find offensive. Ginkgo is easily identified by its fan-shaped leaves that turn a brilliant yellow in the fall.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
ginkgo <i>Ginkgo biloba</i>	195.4	111	59	321	Behind State Housing Authority Building, Dover
ginkgo <i>Ginkgo biloba</i>	204.2	78	87.5	304	707 Kings Highway, Lewes
ginkgo <i>Ginkgo biloba</i>	153.3	83	73	255	Rockwood Museum and Park, Wilmington

Hackberry

Scattered throughout the state, the hackberry prefers moist soils but tolerates poor, sandy soils. It is a good tree for parks and large open areas because it can withstand dry, windy conditions. Hackberry leaves are extremely variable, but the tree can be identified by the cork-like ridges and warts on its bark. Its wood is not valuable, but its fruit, a small berry, is eaten by many birds and mammals.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
hackberry <i>Celtis occidentalis</i>	136.3	72	80	228	Pilltown Road Cemetery, Lewes
hackberry <i>Celtis occidentalis</i>	99	66.7	62	181	Cubalo Park, Millsboro
hackberry <i>Celtis occidentalis</i>	73.8	45	42.5	129	Federal Street, Milton



Hickory

Four hickory species (bitternut, mockernut, pignut and shagbark) are common in Delaware; most prefer rich, deep soils. Hickories are identifiable by their alternate, compound leaves. While not commonly planted in urban areas due to their immense size, large taproots, and transplant difficulty, they have a brilliant, yellow fall color. Hickory nuts are a favorite staple for wildlife. Hickory wood is extremely hard and durable, and is commonly used for tool handles.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
bitternut hickory <i>Carya cordiformis</i>	99	111	67.5	227	Brandywine Creek State Park, Wilmington
bitternut hickory <i>Carya cordiformis</i>	102.7	73	62.5	191	Brandywine Cemetery - 701 Delaware Ave., Wilmington
pignut hickory <i>Carya glabra</i>	108.1	92	54	214	Dover Air Force Base, Dover
pignut hickory <i>Carya glabra</i>	106.8	85	62.5	207	Brandywine Creek State Park, Wilmington
pignut hickory <i>Carya glabra</i>	71.9	96	42	178	Dover Air Force Base, Dover
pecan <i>Carya illinoensis</i>	174.7	105	81	300	22429 Speck Rd., Seaford



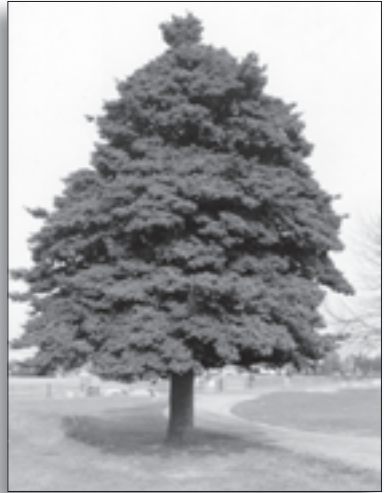
Hickory continued

common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
pecan <i>Carya illinoensis</i>	165.2	91	101	281	24943 Broadkill Road, Milton
pecan <i>Carya illinoensis</i>	146.1	106	84	273	Odd Fellows Lodge #27, Laurel
shellbark hickory <i>Carya lacinosa</i>	115.6	99	72	233	Brandywine Creek State Park, Wilmington
small fruited hickory <i>Carya microcarpa</i>	79.2	61	42	151	Dover Air Force Base, Dover
shagbark hickory <i>Carya ovata</i>	150.8	99	68.5	267	Marl Pit Road, Middletown
shagbark hickory <i>Carya ovata</i>	89.5	115	51	217	Route 82, near the Thomas Marshall House, Yorklyn
shagbark hickory <i>Carya ovata</i>	111.2	90	48.5	213	Commerce and Main Street, Kenton
sand hickory <i>Carya pallida</i>	117	78	72.5	213	Zoar Road, Georgetown
sand hickory <i>Carya pallida</i>	71.9	94	48	178	Dover Air Force Base, Dover
mockernut hickory <i>Carya tomentosa</i>	83.6	105	45.5	200	Dover Air Force Base, Dover
mockernut hickory <i>Carya tomentosa</i>	87.3	92	74.5	198	Brandywine Creek State Park, Wilmington
mockernut hickory <i>Carya tomentosa</i>	69.4	91	50.5	173	Dover Air Force Base, Dover



Holly

The native American holly is easily identified by its dark green, thorny leaves and smooth bark. Holly has male and female trees, and the female trees produce red berries that are highly ornamental and a favorite food for many birds. American holly was designated the state tree in the 1930s when Delaware was the leading exporter of holly Christmas wreaths. The wood of the holly is cream colored, and is often used as decorative inlay on furniture.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
American holly <i>Ilex opaca</i>	106.2	59	35	174	302 Clinton St., Delaware City
American holly <i>Ilex opaca</i>	98	43	41	151	191 Deakynville Road, Townsend
American holly <i>Ilex opaca</i>	82.9	48	41.5	141	4925 Old Capitol Trail, Stanton

American Hornbeam

American hornbeam, also known as blue-beech or musclewood, is a small, native tree that seldom exceeds 30 feet in height. Its fruit is a small, egg-shaped nut. Its distinguishing characteristic is its smooth, blue-gray bark (similar to that of a beech) that often appears twisted and contoured like muscles. Although not frequently used in landscapes, this flood-tolerant tree is common in Delaware’s forests.



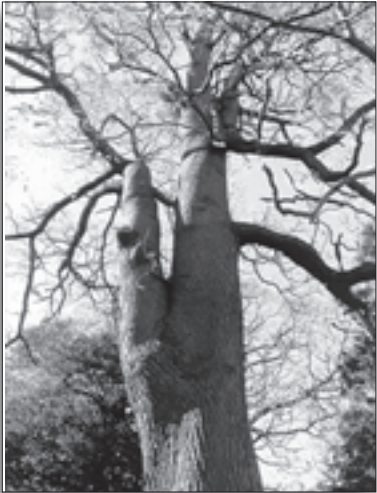
common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
American hornbeam <i>Carpinus caroliniana</i>	60	26	46	98	223 North State Street, Dover
American hornbeam <i>Carpinus caroliniana</i>	31.1	32	34.5	72	Hagley Museum, Wilmington



Hardwoods

Kentucky Coffeetree

While commonly planted in parks and gardens, the Kentucky coffeetree is not native to Delaware. This tree’s name likely originates from its seeds, which resemble coffee beans. The seeds grow in large pods, which can be a nuisance in urban areas when they drop from the tree. The wood of the Kentucky coffeetree is not valuable because it has few uses.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Kentucky coffeetree <i>Gymnocladus dioicus</i>	113.1	82	67	212	Northwest corner of The Green, Dover
Kentucky coffeetree <i>Gymnocladus dioicus</i>	110.9	78	79.5	209	Christ Episcopal Church, Dover
Kentucky coffeetree <i>Gymnocladus dioicus</i>	131	31	68	179	Kent County Levy Court, Dover

Magnolia

Several species of magnolia are planted in Delaware, although only sweetbay magnolia, commonly found in wet areas of southern Delaware, is native. Magnolias are popular landscape trees because they have very fragrant, white flowers. Birds and rodents feed on their small, bright red seeds.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
cucumber magnolia <i>Magnolia acuminata</i>	188.8	88	76.5	296	Ferris School, Elsmere
cucumber magnolia <i>Magnolia acuminata</i>	185.4	90	79	295	Zoar Road, Georgetown
cucumber magnolia <i>Magnolia acuminata</i>	179.4	88	67	284	Scull Mansion, Dover
southern magnolia <i>Magnolia grandiflora</i>	126.6	62	48	201	410 South Walnut Street, Milford
southern magnolia <i>Magnolia grandiflora</i>	114.4	52	41	177	Buena Vista, New Castle



Magnolia continued

common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
bingleaf magnolia <i>Magnolia macrophylla</i>	90.5	44	50.5	147	Rockwood Museum and Park, Wilmington
saucer magnolia <i>Magnolia soulangeana</i>	57.5	45	26.5	109	Hagley Museum, Wilmington
sweetbay magnolia <i>Magnolia virginiana</i>	100.5	42	44	154	Bacons Road, Laurel
sweetbay magnolia <i>Magnolia virginiana</i>	41.8	67	23.2	115	Austin Short's farm, Georgetown



Maple

Several species of maple are found in Delaware, although only red maple is common (in fact, it is the most common tree in Delaware). Since maples are hardy and adapt easily to most environments, they are widely planted in urban areas. Maple wood, particularly sugar maple, is used for furniture and hardwood flooring. Maples produce brilliant fall foliage in colors that range from yellow to bright orange and scarlet red.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
boxelder <i>Acer negundo</i>	137.9	75	63	229	Hagley Museum, Wilmington
red maple <i>Acer rubrum</i>	217.4	77	65	311	544 Way Road, Hockessin
red maple <i>Acer rubrum</i>	196.7	36	50	245	24 Southern Blvd., Wyoming
red maple <i>Acer rubrum</i>	116.9	88	45	216	Dover Air Force Base, Dover
silver maple <i>Acer saccharinum</i>	263.6	80	90	366	3558 Barley Mill Road, Yorklyn



Maple continued

common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
silver maple <i>Acer saccharinum</i>	246.9	86	61	348	Webbs Lane at Governors Ave., Dover
silver maple <i>Acer saccharinum</i>	242.5	69	82.5	332	18 William Street, Selbyville
sugar maple <i>Acer saccharum</i>	154.3	113	75	286	Hagley Museum, Wilmington
sugar maple <i>Acer saccharum</i>	146.1	81	101	252	West side of 15, Canterbury
sugar maple <i>Acer saccharum</i>	128.8	98	73	245	Elderwood, Dover



Red Oak

Several red oak species are native to Delaware, making them some of the most common trees in the state. Red oaks are distinguishable from white oaks by the sharp end points on the lobes of their leaves. Certain species, such as pin and willow oaks, are commonly planted along streets and in urban areas due to their hardiness. The buds and fruit (acorns) are a vital food source for many wildlife species. Red oak lumber, with its distinctive, reddish color, is highly valued; it is used for furniture, veneer, and flooring.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
scarlet oak <i>Quercus coccinea</i>	159	100	105	285	3000 Creek Road, Yorklyn
scarlet oak <i>Quercus coccinea</i>	95.8	84	54	193	Forrest Ave. Veterinary Clinic, Route 8, Dover
southern red oak <i>Quercus falcata</i>	247.9	103	101	376	East of Int. of 13 & 14, Harrington
southern red oak <i>Quercus falcata</i>	168.7	107	75	294	700 Woodsdale Dr., wood lot across from house, Wilmington
southern red oak <i>Quercus falcata</i>	157.1	106	112.5	291	85 Sussex Lane, Rehoboth
shingle oak <i>Quercus imbricaria</i>	104	76	30	188	Hagley Museum, Wilmington

Red Oak continued

common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
shingle oak <i>Quercus imbricaria</i>	88	59	68	164	Del State University, near Ag. Building main entrance, Dover
laurel oak <i>Quercus laurifolia</i>	141.4	78	66	236	2605 Newport Gap Pike, Wilmington
laurel oak <i>Quercus laurifolia</i>	118.8	76	92.5	218	2702 Green Street, Claymont
laurel oak <i>Quercus laurifolia</i>	62.5	40	50	115	Rockford Park, Wilmington
blackjack oak <i>Quercus marilandica</i>	37.7	79	18.5	121	Hagley Museum, Wilmington
water oak <i>Quercus nigra</i>	159.9	82	55	256	Redden State Forest - Appenzellar Tract, Ellendale
pin oak <i>Quercus palustris</i>	153.3	110	107.5	290	12 Courtney Road, Elsmere
pin oak <i>Quercus palustris</i>	157.1	104	83	282	Holy Cross Church, Dover
pin oak <i>Quercus palustris</i>	149.2	98	104.5	273	Brandywine Cemetery - 701 Delaware Ave., Wilmington
willow oak <i>Quercus phellos</i>	235.6	83	102.5	344	Garden Hedge at 1626 Williamsville Road, Houston
willow oak <i>Quercus phellos</i>	184.4	100	87	306	17 Fairfield Road, Claymont
willow oak <i>Quercus phellos</i>	164.6	88	59	267	West Brandywine Apartments, Route 8, Dover



Red Oak continued

common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
northern red oak <i>Quercus rubra</i>	292.2	92	114	413	Tatnall School, Wilmington
northern red oak <i>Quercus rubra</i>	210.8	92	97	327	6613 Carpenter Bridge Road, Frederica
northern red oak <i>Quercus rubra</i>	183.8	118	72.5	320	North Star Road, Hockessin
black oak <i>Quercus velutina</i>	178.4	120	93.5	322	705.5 Woodsdale Road, Wilmington
black oak <i>Quercus velutina</i>	190.1	97	103.5	313	801 W. 20th Street, Wilmington
black oak <i>Quercus velutina</i>	165.6	102	75	286	Sharp Farm, NE of Odessa



White Oak

Delaware is home to several species of white oaks, which are common throughout the state. The lobes of white oak leaves are more rounded than those of red oaks. White oak acorns are larger and sweeter than those of red oak, and therefore are preferred by most wildlife species. White oak lumber is stronger and more durable than red oak; it is used for furniture, lumber, and barrels.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
white oak <i>Quercus alba</i>	269.9	106	111	404	851 Chambers Rock Road, Newark
white oak <i>Quercus alba</i>	241.9	96	104	364	1217 Wilson Road, Wilmington
white oak <i>Quercus alba</i>	243.8	86	115	359	Meeting House and Bengé Roads, Hockessin
bur oak <i>Quercus macrocarpa</i>	95.2	97	76	211	Bellevue State Park, Wilmington
bur oak <i>Quercus macrocarpa</i>	100.8	88	76	208	Hagley Museum, Wilmington
bur oak <i>Quercus macrocarpa</i>	102.4	83	62	201	Hagley Museum, Wilmington

White Oak continued

common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
swamp chestnut oak <i>Quercus michauxii</i>	203.9	115	106.8	346	Eagles Nest Landing Road at McQuail Road, Smyrna
swamp chestnut oak <i>Quercus michauxii</i>	99	98	61.5	212	Dover Air Force Base, Dover
chestnut oak <i>Quercus prinus</i>	187.9	62	87	272	56 Oakmont Drive, Wilmington
chestnut oak <i>Quercus prinus</i>	134.1	117	72	269	Mt. Cuba Center Inc., Mt. Cuba
chestnut oak <i>Quercus prinus</i>	117.8	85	50	215	Brandywine Creek State Park, Wilmington
post oak <i>Quercus stellata</i>	90.5	56	52	160	Redden Lodge, Georgetown
post oak <i>Quercus stellata</i>	69.7	65	32	143	Austin Short's farm, Georgetown



Osage-Orange

While not native to Delaware, Osage-orange is often found in hedgerows because it was once planted to establish natural fences due to its stout branches and thorns. It is recognizable by its orange-brown bark and 4-6” diameter fruit that resembles an orange and contains several nut-like seeds. Osage-orange wood is very heavy and hard, and was once used for fence posts and wheels. Native Americans used the wood to construct bows, hence the nickname, bow-wood.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
Osage-orange <i>Maclura pomifera</i>	307.6	66	83.5	394	Hagley Museum, Wilmington
Osage-orange <i>Maclura pomifera</i>	212.1	72	72	302	669 Southwood Road, Hockessin
Osage-orange <i>Maclura pomifera</i>	204.5	80	50	297	Buena Vista, New Castle

Persimmon

Persimmons are found throughout the state but usually in open areas or along the forest edge. Like the holly, persimmon trees are either male or female, with the female producing a 1-2” diameter seeded fruit that sweetens as it ripens. The fruit is a staple in the diets of many animals. Its wood is hard, polishes easily, and is used for carving and golf club heads.



common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
persimmon <i>Diospyros virginiana</i>	116.2	71	52	200	221 Oak Road, Seaford
persimmon <i>Diospyros virginiana</i>	99.3	57	47	168	235 Pine Valley Road, Dover



Poplar

True poplars (which include aspens) are found in Delaware, although most are not native. Virtually all poplars are found in open areas because they are not tolerant of shade. Because of their rapid growth, these species are often planted to establish shade; however, they can be problematic due to a short lifespan, weak wood, and tendency to spread. The soft, lightweight wood is used for paper, crates, and boxes.



common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
white poplar <i>Populus alba</i>	160.8	72	48	245	Kitts Hummock Road, Dover
white poplar <i>Populus alba</i>	86.1	81	42.5	178	East Water Street, Dover
eastern cottonwood <i>Populus deltoides</i>	125.3	103	57.5	243	Brandywine Creek State Park, Wilmington

Redbud

Only native in extreme northern Delaware, this small tree is commonly planted in urban areas due to its abundant pink flowers and purple spring leaves. Redbud has little wildlife or timber value; however, the flower is a delicacy often eaten in soups or salads.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
redbud <i>Cercis canadensis</i>	63.8	47	41	121	Hagley Museum, Wilmington
redbud <i>Cercis canadensis</i>	36.1	37	39	83	1125 Old Lancaster Pike, Hockessin



Sassafras

Common throughout Delaware, this tree is usually found on sandy soils and does not thrive in shade. It is easily recognized by its green twigs, multiple-shaped leaves (including mitten shapes), and spicy aroma. It is a great native tree for urban areas because it is fast growing and has brilliant fall color. Sassafras roots are used to make tea, and many animals and birds eat the tree’s berries. The orange-brown wood of sassafras is light and durable; however, these trees seldom reach sizes suitable for lumber.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
sassafras <i>Sassafras albidum</i>	151.1	61	35	221	Brandywine Cemetery - 701 Delaware Ave., Wilmington
sassafras <i>Sassafras albidum</i>	131.9	58	46.6	202	Federal Street, Milton
sassafras <i>Sassafras albidum</i>	84.8	62	47	159	2401 East Mall, Wilmington

Sweetgum

Common and native throughout the state, sweetgum prefers wetter sites but will grow on many soils. Sweetgum is easily identified by its five-pointed, star-shaped leaves and its spiny “monkey balls” that contain tiny seeds. While commonly planted in urban areas, its roots require a large area. Fall color can range from yellow to maroon to purple – all on one tree. Its wood is very difficult to dry; therefore it is used for low-valued products. In the past, its wood was used to make peach baskets and ice cream spoons.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
sweetgum <i>Liquidambar styraciflua</i>	125.3	93	92	241	Brandywine Cemetery - 701 Delaware Ave., Wilmington
sweetgum <i>Liquidambar styraciflua</i>	101.8	120	54	236	Andrews Lake Road, Frederica
sweetgum <i>Liquidambar styraciflua</i>	106.8	106	78	232	Dover Air Force Base, Dover



Sycamore

A native of Delaware, the sycamore, or American planetree, grows rapidly and is found along streams and rivers, although it can be planted on drier sites in urban areas. It is easily identified by its white and green, splotched bark. Although not native, the London plane, a hybrid of American and Oriental Planetree, is also planted in Delaware because it is less susceptible to disease and insect pests; its bark has darker white and green colors. Sycamore wood is not very strong or durable but is used for some furniture, cutting boards, and paper.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
London plane <i>Platanus x acerifolia</i>	219.6	106	107	352	Winterthur, Wilmington
London plane <i>Platanus x acerifolia</i>	206.7	95	84.5	323	1191 Boyds Corner Road, Middletown
sycamore <i>Platanus occidentalis</i>	219	118	112	365	Valley Garden Park, Wilmington
sycamore <i>Platanus occidentalis</i>	215.2	112	150	365	805 Sycamore Lane, Centreville
sycamore <i>Platanus occidentalis</i>	252.6	85	100.3	363	West side of Hickman Rd., north of Scotts Store Rd., Greenwood

Walnut

Walnut is native to Delaware and grows best in deep, rich, moist soils. Walnuts are usually only planted in open areas within the urban environment because they are allelopathic (produce toxins that are harmful to other plants). Black walnuts are prized for their wood, which is durable, easily-worked and used for veneer, furniture, and gunstocks.



common name scientific name	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
butternut <i>Juglans cinerea</i>	170.9	78	72.5	267	Buena Vista, New Castle
butternut <i>Juglans cinerea</i>	130.7	67	86	219	NE side of Intersection of 113 and Route 36, Milford
butternut <i>Juglans cinerea</i>	61.6	88	46	161	Hagley Museum, Wilmington
black walnut <i>Juglans nigra</i>	212.1	97	95.5	333	Holy Cross Church, Dover
black walnut <i>Juglans nigra</i>	182.5	99	83.3	302	416 Union Street, Milton
black walnut <i>Juglans nigra</i>	158	87	82	266	1518 Gilpin Ave., Wilmington
English walnut <i>Juglans regia</i>	155.2	86	76.2	260	39 South Main Street, Camden



Yellow-Poplar

Actually a member of the magnolia family, the yellow-poplar is a very valuable commercial tree because its wood is used for many products. Yellow-poplar also grows rapidly and is resistant to most diseases and insects; therefore, it is now a popular landscape tree. The tree prefers deep, rich soils and it is one of the tallest tree species in Delaware. Its leaves, which turn bright yellow in the fall, are shaped like a tulip flower, hence its nickname, tulip-poplar.



common name <i>scientific name</i>	cbh (in.)	hgt (ft.)	crown spread (ft.)	total points	location
yellow-poplar <i>Liriodendron tulipifera</i>	223.7	166	89	412	Winterthur, Wilmington
yellow-poplar <i>Liriodendron tulipifera</i>	205.1	160	106.5	392	Woodlawn, Wilmington
yellow-poplar <i>Liriodendron tulipifera</i>	207.3	160	94	391	Winterthur, Wilmington

Zelkova

Although zelkova is not native to the area, its attractive, vase-shaped crown makes it a popular street tree; in fact, it is found along many city streets in Delaware. Sometimes called Chinese elm, zelkova has been planted in many urban areas once occupied by the American elm.



common name	cbh	hgt	crown	total	location
scientific name	(in.)	(ft.)	spread (ft.)	points	
zelkova <i>Zelkova serrata</i>	318.9	76	108	422	C.P. Schutt Estate, Greenville



Delaware Forest Service

Program and Services

The mission of the Delaware Forest Service is to conserve, protect, and enhance the forest and its resources for the public through education, management, demonstration, promotion, and providing technical services in a timely and efficient manner.

To achieve our mission, the Delaware Forest Service maintains offices in all three counties, and our professionals provide a wide variety of services through several state and federally funded programs. These services are grouped into three program areas—Forest Conservation, Forest Protection, and Forestry Education. While the responsibilities and services of these programs overlap, they are each unique and help us achieve our objectives.

The Forest Conservation Program helps Delawareans to better manage their forest resources. It includes the following services:

- Forest management assistance to Delaware landowners
- Reforestation assistance including low-cost tree seedlings
- Community forestry technical assistance and grants for cities and towns
- Marketing forest products

The Forest Protection Program helps homeowners and landowners monitor, maintain, and when possible, improve

the health of Delaware's forests through several services:

- Wildland fire prevention and suppression
- Enforcement of forest protection laws such as the Seed Tree Law and the Erosion and Sedimentation Law
- Forest pests—diagnosis and treatment recommendations

Through our Forestry Education Program, the Delaware Forest Service educates Delawareans about the importance of our forests:

- Management of three state forests—Blackbird, Redden, and Taber—totalling more than 15,000 acres
- Education and information programs to increase public knowledge of forestry issues

We hope you will either visit one of our offices, give us a call, or send us an e-mail at: Austin.Short@state.de.us to learn more about our services or if you wish to meet with a forester about your forests. The Delaware Forest Service is committed to our customer pledge — *delivering quality services in a timely and professional manner with courtesy and integrity.*

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